

MULTI-COMPONENT FIBERS HAVING ENHANCED REVERSIBLE THERMAL PROPERTIES AND METHODS OF MANUFACTURING THEREOF

ABSTRACT OF THE DISCLOSURE

The invention relates to a multi-component fiber having enhanced reversible thermal properties and methods of manufacturing thereof. The multi-component fiber comprises a fiber body formed from a plurality of elongated members, at least one of the elongated members comprising a temperature regulating material dispersed therein. The temperature regulating material comprises a phase change material. The multi-component fiber may be formed via a melt spinning process or a solution spinning process and may be used or incorporated in various products where a thermal regulating property is desired. For example, the multi-component fiber may be used in textiles, apparel, footwear, medical products, containers and packagings, buildings, appliances, and other products.